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U.S. Department of the Interior • U.S. Geological Survey

# MINERAL INDUSTRY SURVEYS

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## CHROMIUM IN FEBRUARY 1997

Chromite consumption decreased slightly in February 1997 compared with the previous month's data, according to the U.S. Geological Survey. Net production of chromium ferroalloys and metal in February 1997 decreased slightly compared with data for January 1997. Chromite stocks increased 4% over the same period. At the February rate of consumption, chromium stocks represented 9 months of domestic supply.

Included in this Mineral Industry Surveys are: U.S. consumption and stocks of chromite; U.S. net production, net shipments, and stocks of chromium materials; U.S. Government inventory; and foreign trade for January 1997.

### Update

On April 1, 1997, the Defense National Stockpile Center

(DNSC) reported the award of 45 metric tons of refractory grade chromite ore under Solicitation for Offers, DLA-CHROMITE-001 to Harbison-Walker Refractories Co., Pittsburgh, PA. The chromite ore was sold as is, where is, for about \$28 per ton. DNSC offers chromite ore for sale on the third Tuesday of each month. For further information contact Rick Talbott at (703) 767-5497. On April 7, 1997, DNSC announced the sale of 15,316 tons of high-carbon ferrochromium to Macalloy Corporation, North Charleston, South Carolina. The high-carbon ferrochromium was sold as is, where is, for about \$731 per ton. For further information contact Jennifer Iribarren at (703) 767-5847. DNSC also reported that no metallurgical grade chromite ore was sold.

TABLE 1  
U.S. SALIENT CHROMIUM STATISTICS 1/

(Metric tons, gross weight unless otherwise noted)

	1996		1997		
	4th quarter	Jan.-Dec.	Jan.	Feb.	Jan. - Feb.
Production:					
Chromium ferroalloys and metal: 2/					
Net production:					
Gross weight	1,790	36,800	3,020	3,000	6,020
Chromium content	1,680	26,400	2,220	2,190	4,410
Net shipments	2,800	38,800	3,590	7,280	10,900
Stainless steel production 3/	453,000	1,920,000	NA	NA	NA
Components of U.S. supply:					
Stainless steel scrap receipts	141,000	579,000	57,900 r/	51,600	110,000
Imports for consumption					
Chromite ore	58,700	250,000	37,700	NA	37,700 4/
Chromium ferroalloys 5/	65,400	420,000	31,600	NA	31,600 4/
Chromium metals 6/	2,150	8,730	561	NA	561 4/
Stainless steel	NA	NA	NA	NA	NA
Stainless steel scrap	12	47	NA	NA	NA
Distribution of U.S. supply:					
Consumption:					
Chromite ore	56,200	282,000	21,000	20,600	41,600
Chromium ferroalloys & metals	82,200	289,000	NA	NA	NA
Exports:					
Chromite ore	3,770	69,400	1,540	NA	1,540 4/
Chromium ferroalloys	8,750	15,800	635	NA	635 4/
Chromium metals	279	1,330	60	NA	60 4/
Stainless steel	NA	NA	NA	NA	NA
Stainless steel scrap	76	303	23	NA	23 4/
Stocks at end of period:					
Industry:					
Chromite ore:					
Chemical and metallurgical	166,000 r/	XX	179,000	187,000	XX
Refractory	7,890	XX	8,030 r/	8,810	XX
Total	174,000 r/	XX	188,000 r/	195,000	XX
Chromium ferroalloys and metal:					
Producer	6,190 r/	XX	5,870	5,190	XX
Consumer	24,400	XX	NA	NA	XX
Government stockpile:					
Chromite ore	1,190,000	XX	1,180,000	1,170,000	XX
Chromium ferroalloys	1,050,000	XX	1,040,000	1,030,000	XX
Chromium metals	7,720	XX	7,720	7,720	XX

r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes low- and high-carbon ferrochromium, chromium concentrates, ferrochromium, chromium metal, and other miscellaneous alloys.

3/ Data on stainless steel production from American Iron and Steel Institute, quarterly production of stainless and heat resisting raw steel.

4/ Includes data for January; February not available at time of publication.

5/ Includes high-, medium-, and low- ferrochromium and ferrochromium silicon.

6/ Includes waste and scrap and other.

TABLE 2  
U.S. GOVERNMENT STOCKPILE INVENTORY 1/ OF CHROMIUM MATERIALS 2/

(Metric tons)

Period	Chromite ore			Chromium ferroalloys			Chromium metal	
	Chemical	Metal-lurgical	Refractory	High-carbon ferro-chromium	Low-carbon ferro-chromium	Ferro-chromium silicon	Alumino-thermic	Electrolytic
1996:								
January	220,000	750,000	328,000	738,000	283,000	52,900	2,670	5,020
February	220,000	739,000	328,000	738,000	283,000	52,900	2,670	5,020
March	220,000	722,000	328,000	738,000	283,000	52,900	2,670	5,020
April	220,000	717,000	328,000	738,000	283,000	52,900	2,670	5,020
May	220,000	694,000	328,000	738,000	283,000	52,900	2,670	5,020
June	220,000	658,000	327,000	738,000	283,000	52,900	2,670	5,020
July	220,000	655,000	322,000	738,000	283,000	52,900	2,670	5,020
August	220,000	655,000	322,000	738,000	283,000	52,900	2,670	5,020
September	220,000	647,000	322,000	734,000	283,000	52,700	2,670	5,050
October	220,000	645,000	322,000	732,000	283,000	52,700	2,670	5,050
November	220,000	645,000	322,000	725,000	283,000	52,700	2,670	5,050
December	220,000	645,000	322,000	718,000	283,000	52,700	2,670	5,050
1997:								
January	220,000	637,000	322,000	704,000	283,000	52,700	2,670	5,050
February	220,000	633,000	322,000	695,000	283,000	52,700	2,670	5,050

1/ Includes specification and non-specification grade materials and materials set aside for disposal but not yet shipped.

2/ Data are rounded to three significant digits.

Source: Defense National Stockpile Center.

TABLE 3  
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS AND METAL 1/

Period	Chromite ore		Chromium ferroalloys 2/			Chromium metal 3/	
	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
1996:							
January	1,740	\$427	885	519	\$1,120	86	\$1,000
February	1,700	407	887	536	1,230	44	618
March	1,840	484	669	399	894	124	1,450
April	17,100	2,280	734	444	843	165	1,530
May	1,730	1,160	472	288	597	76	863
June	37,900	4,270	490	291	583	143	1,110
July	1,920	568	1,320	797	1,640	214	1,820
August	1,060	564	676	411	694	63	717
September	614	132	955	554	912	137	772
October	1,310	152	1,100	680	956	97	1,010
November	1,390	486	1,450	852	1,350	93	825
December	1,060	214	6,200	3,750	3,140	89	1,090
Total	69,400	11,100	15,800	9,520	14,000	1,330	12,800
1997:							
January	1,540	364	635	405	718	60	600

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes low-, medium-, and high-carbon ferrochromium, and ferrochromium-silicon.

3/ Includes wrought and unwrought and waste and scrap.

Source: Bureau of the Census.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE,  
FERROCHROMIUM, AND CHROMIUM METAL 1/

(Metric tons)

	1996			1997
	November	December	Jan.-Dec.	January
Chromite ore:				
Not more than 40% chromic oxide:				
Gross weight	--	--	8,030	5,780
Chromic oxide content	--	--	2,650	1,910
More than 40% but less than 46% chromic oxide:				
Gross weight	5,810	--	25,400	--
Chromic oxide content	2,670	--	11,100	--
46% or more chromic oxide:				
Gross weight	32,200	1,030	217,000	31,900
Chromic oxide content	15,000	485	102,000	14,800
Total, all grades:				
Gross weight	38,000	1,030	250,000	37,700
Chromic oxide content	17,600	485	116,000	16,700
Ferrochromium:				
Low-carbon: 2/				
Gross weight	2,070	3,600	60,700	5,220
Chromium content	1,350	2,460	38,400	3,410
Medium-carbon: 3/				
Gross weight	--	--	36	17
Chromium content	--	--	23	11
High-carbon: 4/				
Gross weight	2,860	23,700	359,000	26,300
Chromium content	1,450	13,200	207,000	16,200
Total, all grades				
Gross weight	4,920	27,300	420,000	31,600
Chromium content	2,800	15,600	246,000	19,700
Chromium metal:				
Other than waste and scrap	573	795	8,670	560
Waste and scrap	21	--	58	(5/)
Total, all grades	594	795	8,730	561

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Ferrochromium containing not more than 3% carbon.

3/ Ferrochromium containing more than 3% carbon but not more than 4% carbon.

4/ Ferrochromium containing more than 4% carbon.

5/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE IN JANUARY 1997,  
BY GRADE AND BY COUNTRY 1/

Country	January		
	Gross weight (metric tons)	Cr <sub>2</sub> O <sub>3</sub> (metric tons)	Value 2/ (thousands)
Not more than 40% chromic oxide:			
Philippines	5,780	1,910	\$1,050
46% or more chromic oxide:			
South Africa	31,900	14,800	2,830
Total, all grades:			
Philippines	5,780	1,910	1,050
South Africa	31,900	14,800	2,830
Total	37,700	16,700	3,880

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import, duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

Source: Bureau of the Census.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN JANUARY 1997,  
BY GRADE AND BY COUNTRY 1/

Country	January		
	Gross weight (metric tons)	Chromium content (metric tons)	Value 2/ (thousands)
High-carbon ferrochromium: 3/			
Canada	20	9	\$2
India	385	237	190
South Africa	2,800	1,420	1,070
Turkey	13,500	8,450	6,270
Zimbabwe	9,640	6,120	5,080
Total	26,300	16,200	12,600
Medium-carbon ferrochromium: 4/			
Switzerland	17	11	16
Low-carbon ferrochromium: 5/			
China	51	33	77
Germany	973	683	2,370
Japan	35	23	131
Russia	1,430	987	2,500
South Africa	1,450	841	1,600
Zimbabwe	1,280	847	1,570
Total	5,220	3,410	8,250
Total, all grades:			
Canada	20	9	2
China	51	33	77
Germany	973	683	2,370
India	385	237	190
Japan	35	23	131
Russia	1,430	987	2,500
South Africa	4,250	2,260	2,670
Switzerland	17	11	16
Turkey	13,500	8,450	6,270
Zimbabwe	10,900	6,960	6,660
Total	31,600	19,700	20,900

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. imports duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

3/ Ferrochromium containing more than 4% carbon.

4/ Ferrochromium containing more than 3% but not more than 4% carbon.

5/ Ferrochromium containing not more than 3% carbon.

Source: Bureau of the Census.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN  
JANUARY 1997, BY GRADE AND BY COUNTRY 1/

Country	January	
	Gross weight (metric tons)	Value 2/ (thousands)
Waste and scrap:		
Mexico	(3/)	\$2
Other than waste and scrap:		
China	192	1,110
France	130	1,070
Germany	15	141
Hong Kong	34	203
Japan	22	775
Russia	61	358
Switzerland	(3/)	1
Taiwan	2	10
United Kingdom	104	883
Total	560	4,550
Total, all grades:		
China	192	1,110
France	130	1,070
Germany	15	141
Hong Kong	34	203
Japan	22	775
Mexico	(3/)	2
Russia	61	358
Switzerland	(3/)	1
Taiwan	2	10
United Kingdom	104	883
Total	561	4,550

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. imports duties, freight, insurance and other charges incurred in bringing the merchandise into the United States.

3/ Less than 1/2 unit.

Source: Bureau of the Census.